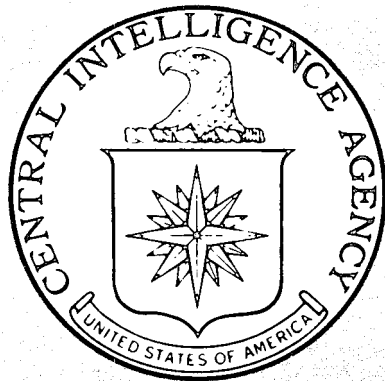


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PHOTOGRAPHIC INTELLIGENCE REPORT

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ANALYSIS OF HULL IMAGERY

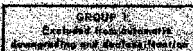
OBSERVED ON SOVIET "N" CLASS SSN

PENDANT NUMBER 119

Declass Review by NIMA/DOD

CIA/PIR 67103

DATE NOVEMBER 1965



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WARNING

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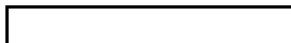
ANALYSIS OF HULL IMAGERY OBSERVED ON SOVIET "N" CLASS SSN
PENDANT NUMBER 119

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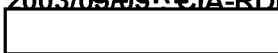
ANALYSIS OF HULL IMAGERY OBSERVED ON SOVIET "N" CLASS SSN
PENDANT NUMBER 119

SUMMARY

X1  photography of a Soviet "N" Class SSN, pendant number 119, has revealed the presence of several small hull protrusions abreast the sail on the portside of the submarine. At least one of these protruding objects appeared to be moving - giving the impression that it may have been some sort of surface coating which had been partially torn away from the hull of the submarine. The apparent flapping motion which was observed appears to have been caused by a combination of submarine movement, wind and wave action. All of these protrusions were located near the portside limber holes; no similar protrusions were visible by the starboard limber holes.

A possible vertical hull opening, located a little forward of the after edge of the sail, was visible just below the deckline on the starboard side of the submarine. It was noted that the color of the hull near this possible opening was considerably lighter in tone than the remainder of the hull. No identification could be made of this imagery.

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PROTRUSIONS ON PORTSIDE HULL OF SOVIET "N" CLASS SSN
(FIGURES 1 - 3)

A detailed examination of all available photography of the portside of Soviet "N" Class SSN, pendant number 119, especially CIA photos 1053371 and 1053372, has revealed at least one small area (and possibly 3-4 other areas) where a possible surface coating had been partially torn away from the hull of the submarine. Each of these areas was located on the hull near the line of limber holes below the after two-thirds of the sail. It was noted that the forwardmost of these protrusions, annotation "A" in Figures 1 and 2, was demonstrably further from the hull of the submarine than when it was observed in Figure 3 - which was probably taken an instant earlier. If this object were rigid and fixed on the hull and given the camera/target spatial relationships encountered between these two photographs (CIA 1053371 and 1053372), item "A" (as seen in Figure 2 - an enlargement of Figure 1) should have been closer to the hull of the submarine in Figure 2 than when observed in Figure 3. To illustrate this relationship further, it will be noted that the pendant number 119 on the starboard side of the sail is much more plainly visible in Figure 3 (due to the change in obliquity) than it is in Figure 2; yet the forwardmost protrusion along the portside hull (item "A") is less visible in Figure 3 than in Figure 2. The most reasonable explanation for this is that this object is flexible and may be flapping against the outside hull of the submarine. The irregular or ragged appearance of this protrusion and its dissimilar configuration between Figures 2 and 3 also contributed to this assessment.

An additional series of 3 or 4 protrusions was visible below the after portion of the sail along the hull by the portside limber holes. (See annotation "B," Figure 2.) Their irregular appearance lead to the impression that these objects were not rigid structures but rather were possibly torn pieces of a substance coating the hull. Each of these objects appeared to form roughly the same angle with the hull as did object "A" in Figure 2, reinforcing the impression that the forces of submarine movement, wind and wave action had acted in similar fashion against all of these protrusions. A more positive evaluation of this imagery (item "B") could not be made since this area of the hull was masked by the sail in Figure 3.

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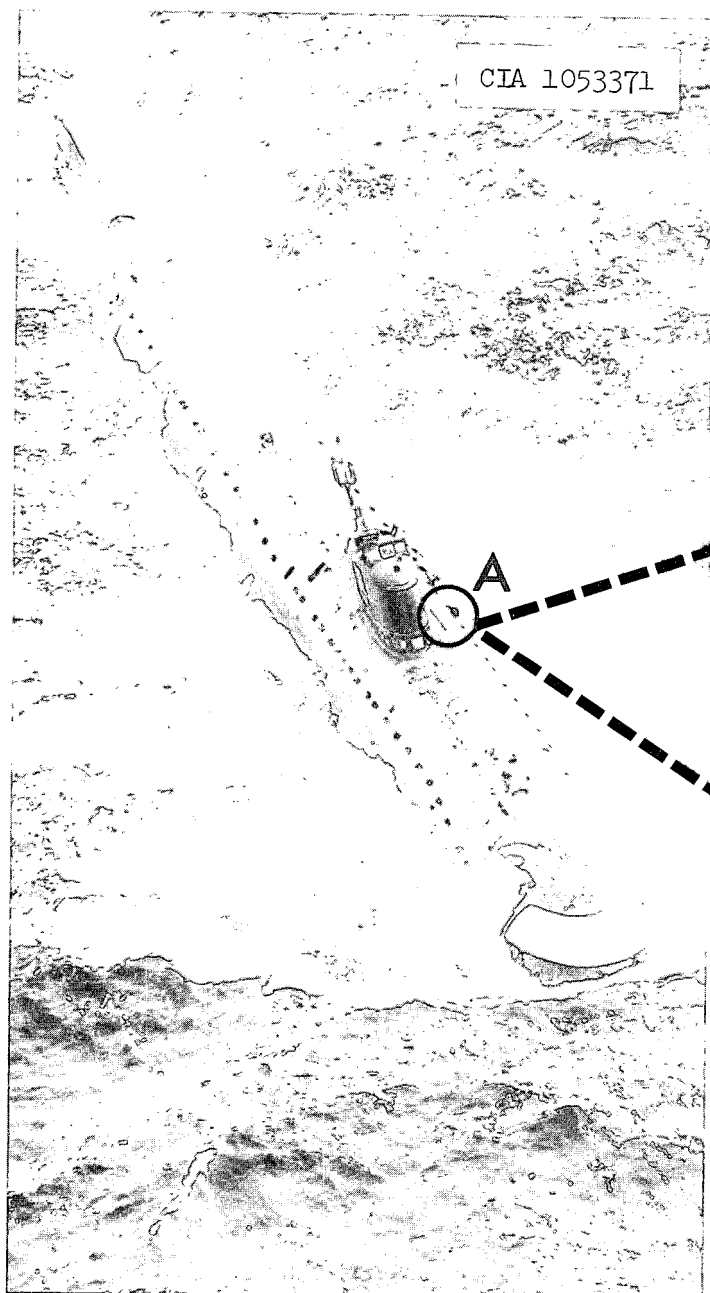


FIGURE 1

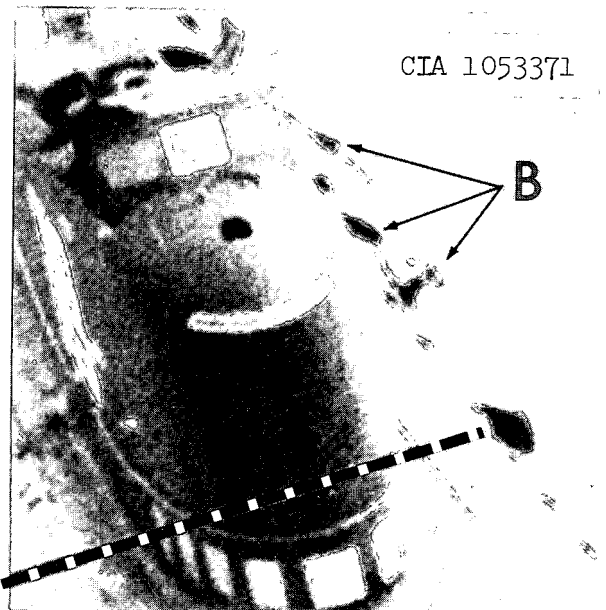


FIGURE 2

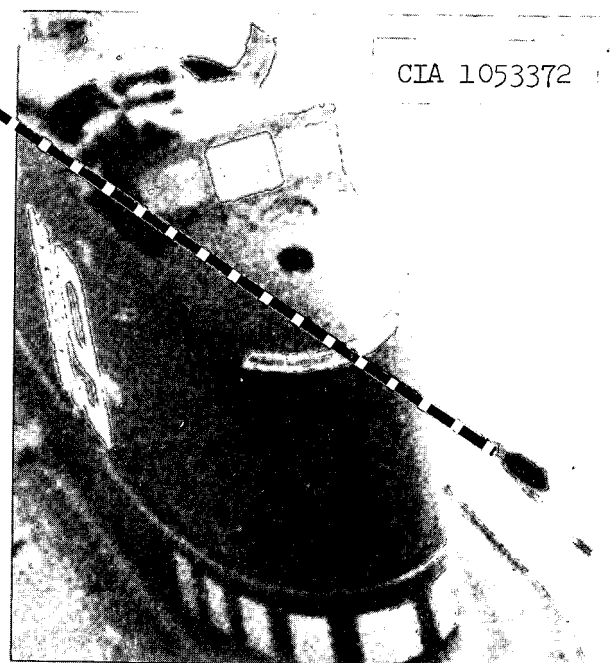


FIGURE 3

PROTRUSIONS ON HULL OF SOVIET N-CLASS SSN

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UNIDENTIFIED POSSIBLE STARBOARD HULL OPENING ON SOVIET "N" CLASS SSN
(FIGURES 4 - 5)

An elliptically-shaped light-toned area, roughly  across its major (nearly vertical) axis, was observed on the uppermost curved area of the outer hull just forward of the after edge of the sail on the starboard side of the submarine. (See annotation "C," Figure 4.) A nearly vertical line bisects this light-toned area (see large arrow outline, Figure 5). An examination in stereo of several good quality photos taken in sequence of this imagery (CIA 1053376 through 1053380) has revealed that the plane of the light-toned surface forward of the bisecting line is slightly depressed when compared to the plane of the light-toned area aft of this line. This analysis has lead to the belief that the nearly vertical line represents the outer edge of a possible hull opening (or "scoop") along the side of the submarine.

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Further evidence to support this possibility was derived from an examination of CIA 1053376 through 1053381, and CIA 1053371 through 1053373, containing a sequence of views of this possible hull opening as the camera stations progressed from behind this point on the submarine to a position forward of the submarine. It was noted that the vertical line was only faintly visible in the views taken from just abaft the starboard beam of the submarine but that the line became more visible and wider as the camera stations progressed toward the starboard bow of the submarine. (Note the width of this possible vertical opening as imaged on Figure 1.)

In several photographs of this imagery (CIA 1053376 through 1053380) a small linear object appeared to protrude out from the base of the possible hull opening. (See solid white arrow, Figure 5.) In other photographs (CIA 1053371 and CIA 1053372) there was no evidence of this object. The latter series of photographs appear to have been taken just after the first series.

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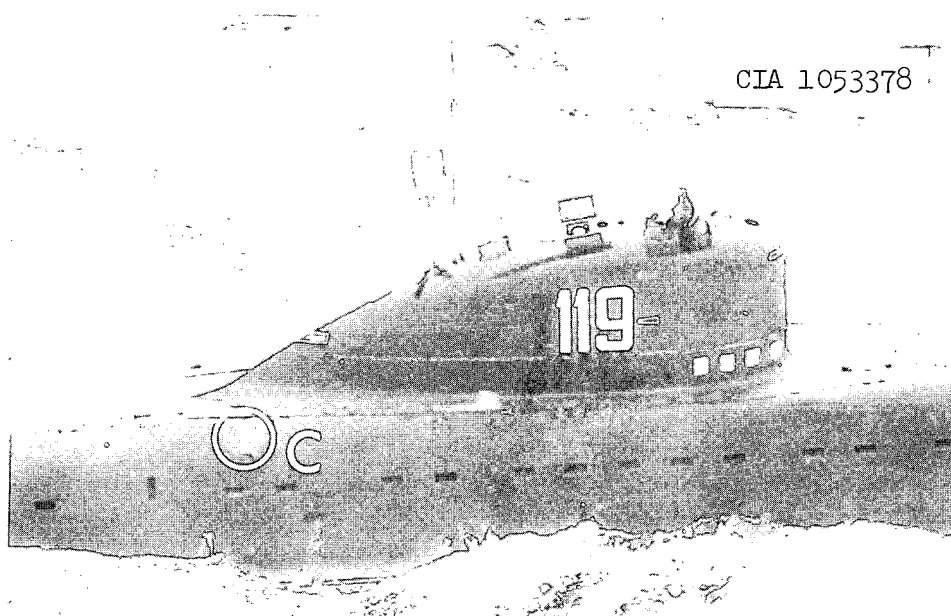


FIGURE 4

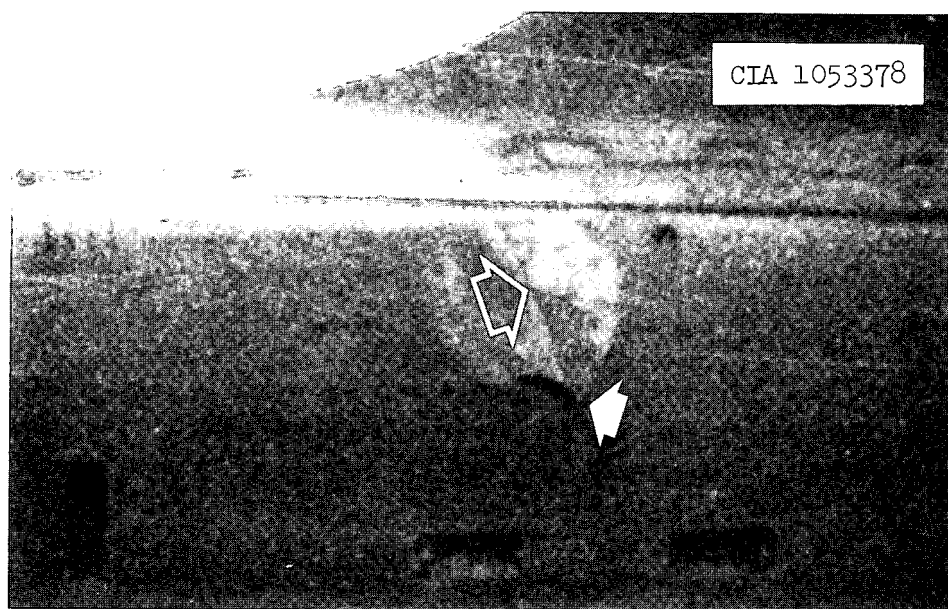


FIGURE 5

UNIDENTIFIED POSSIBLE STARBOARD HULL OPENING

SOVIET N-CLASS SSN

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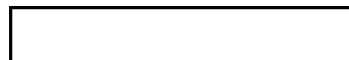
DATE

CLASSIFICATION

1053368 - 1053381


28 May 1965

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DOCUMENTS

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dated September 1965 (SECRET 

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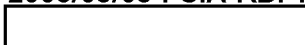
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